

Attorney Docket Nos. See Appendix A  
Application Serial Nos. See Appendix A

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of: Listed in Appendix A

Serial No.: Listed in Appendix A

Filed: Listed in Appendix A

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U.S. Patent and Trademark Office  
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**DECLARATION UNDER 37 C.F.R. § 1.132**

I, David W. JOHNSON, Ph.D., declare as follows:

1. Cal/West Seeds ("Cal/West") is the assignor of each of the U.S. Patent Application referenced in Appendix A ("the Cal/West applications"). I am the Assistant Director of Research for Cal/West. The Cal/West applications referenced in Appendix A have the same specification.

2. I am a named co-inventor of each of the Cal/West applications. I am familiar with the specification, the pending claims, and the prosecution file histories of the Cal/West applications.

3. I have read and understand the Final Office Action issued in application no. 10/698,424 ("the '424 application") dated September 12, 2011. Claims 2-4, 6-19, 30 and 31 stand rejected under 35 USC § 112, first paragraph, as allegedly failing to comply with the written description requirement. More specifically, the Office Action alleges that (1) the specification has not identified which conserved germplasm is associated with the faster recovery after spring green-up or after harvest trait; (2) a representative number of species of plants with the claimed

characteristics has not been shown; and (3) the specification has not identified which conserved germplasm is associated with the more erect stems at late bloom trait (i.e., standability).

4. I have read and understand the Final Office Action issued in the application no. 11/925,041 ("the '041 application") dated August 11, 2011. Claims 1-14 and 17 stand rejected under 35 USC § 112, first paragraph, as allegedly failing to comply with the written description requirement. More specifically, the Office Action alleges that (1) the specification has not identified which conserved germplasm is associated with the high standability trait; and (2) a representative number of species of plants with the claimed characteristics has not been shown. Claims 11, 13 and 14 remain rejected under 35 USC § 102(b) as allegedly being anticipated by Barnes et al (USDA Tech Bull 1571, 1991). Claims 1-10 remain rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 7,288,698.

5. I have read and understand the Final Office Action issued in the application no. 11/925,046 ("the '046 application") dated February 25, 2011. A Notice of Appeal was filed on June 15, 2011 in the '046 application. Claims 1-8 and 11 stand rejected under 35 USC § 112, first paragraph, as allegedly failing to comply with the written description requirement. More specifically, the Office Action alleges that (1) the specification has not identified which conserved germplasm is associated with the faster recovery after spring green-up or after harvest trait; and (2) a representative number of species of plants with the claimed characteristics has not been shown.

6. The presently amended pending claims in the '424 application are directed to *Medicago sativa* alfalfa varieties having about 8% or greater recovery after spring green-up or after harvest coupled with having about 15% or greater more erect stems at late bloom when compared to specific commercial check varieties grown under the same field growing conditions, wherein such checks were among the best commercial check varieties available at time of the present invention, and wherein the claimed *Medicago sativa* alfalfa varieties comprise 'French' type alfalfa germplasm and elite alfalfa germplasm adapted to North America. The '424 application provides adequate and detailed written descriptions of the claimed alfalfa varieties by providing a representative number of examples, i.e., at least three very different and distinct *Medicago sativa* alfalfa varieties ('CW

95026', 'CW 83021', and 'CW 85029'), which exemplify the invention and meet the limitations of the claims. Furthermore, the '424 application provides standard breeding methodologies well known to those skilled in the art and deposited germplasm which can be utilized for developing further alfalfa varieties which meet the limitations of the claims.

7. The presently amended pending claims in the '041 application are directed to *Medicago sativa* alfalfa varieties having about 15% or greater more erect stems at late bloom when compared to specific commercial check varieties grown under the same field growing conditions, wherein such checks were among the best commercial check varieties available at time of the present invention; wherein the *Medicago sativa* alfalfa varieties comprise 'French' type alfalfa germplasm and elite alfalfa germplasm adapted to North America; and wherein the *Medicago sativa* alfalfa varieties have an "R" or "HR" level of resistance rating against one or more diseases selected from the group consisting of bacterial wilt, phytophthora root rot and verticillium wilt. The '041 application provides adequate and detailed written descriptions of the claimed alfalfa varieties, by providing a representative number of examples, i.e., at least three very different and distinct *Medicago sativa* alfalfa varieties ('CW 95026', 'CW 83021', and 'CW 85029'), which exemplify the invention and meet the limitations of the claims. Furthermore, the '041 application provides standard breeding methodologies well known to those skilled in the art and deposited germplasm for developing further alfalfa varieties which meet the limitations of the claims.

8. The presently amended pending claims in the '046 application are directed to *Medicago sativa* alfalfa varieties having about 8% or greater faster recovery after spring green-up or after harvest compared to specific commercial check varieties grown under the same field growing conditions, wherein such checks were among the best commercial check varieties available at time of the present invention; wherein the *Medicago sativa* alfalfa varieties comprise 'French' type alfalfa germplasm and elite alfalfa germplasm adapted to North America. The '046 application provides adequate and detailed written descriptions of the claimed alfalfa varieties, by providing a representative number of examples, i.e., at least four very different and distinct *Medicago sativa* alfalfa varieties ('CW 95026', 'CW 75046', 'CW 83021', and 'CW 85029'), which exemplify the invention and meet the limitations of the claims. Furthermore, the '046 application provides

standard breeding methodologies well known to those skilled in the art and deposited germplasm for developing further alfalfa varieties which meet the limitations of the claims.

9. Elite alfalfa varieties adapted to North America are well known to one skilled in the art of alfalfa breeding. A list of representative North American alfalfa varieties as well as additional detailed alfalfa genetic and variety data is published by North American Alfalfa Improvement Conference (NAAIC) (<http://www.naaic.org/varictryaps/>).

10. I have created at least 38 additional *Medicago sativa* alfalfa varieties having the claimed phenotypes, i.e., 8% or greater recovery after spring green-up or after harvest and/or 15% or greater more erect stems at late bloom when compared to specific commercial check varieties grown under the same field growing conditions. Data from alfalfa variety trials from 2002 to 2010 conducted at West Salem, Wisconsin is provided in Exhibit I below. Each of these 38 *Medicago sativa* alfalfa varieties has 'French' type alfalfa germplasm and elite alfalfa germplasm adapted to North America.

11. 'WinterGold', 'HybriForce 400' and/or 'WL319HQ' were included as check varieties in each of the alfalfa variety trials mentioned in paragraph no. 10 above. Alfalfa varieties were seeded in April or May of the first year, and the standability and recovery of all varieties were measured in the following year. The methods of rating and calculating standability and recovery were the same as those described in the Cal/West applications and all varieties were at similar growth stages when the data was collected. As shown in Exhibit I, each of the additional *Medicago sativa* alfalfa varieties has about 15% or greater more erect stems at late bloom coupled with about 8% or greater faster recovery after spring green-up or after harvest when compared to each of the commercial check varieties 'WinterGold', 'HybriForce 400' and/or 'WL319HQ'.

12. Out of the 38 distinct additional *Medicago sativa* alfalfa varieties referenced in paragraph nos. 10 and 11 above, 21 varieties, i.e., 'CW 15033', 'CW 25038', 'CW 25039', 'CW 15030', 'CW 25111', 'CW 35107', 'CW 045007', 'CW 045036', 'CW 045037', 'CW 045038', 'CW 055006', 'CW 055031', 'CW 063012', 'CW 064013', 'CW 065014', 'CW 075007', 'CW 075029',

'CW 075030', 'CW 075031', 'CW 075032', and 'CW 084038', were created by following the same breeding procedures as set forth in the Cal/West applications. Therefore, these 21 additional varieties were created from the 'French' type alfalfa germplasm and the elite alfalfa germplasm adapted to North America using the same breeding methods as were used to create the exemplified varieties referenced in paragraph nos. 6, 7, and 8 above. Each of these 21 varieties meets the limitations of pending independent claims 15 and 30 in the '424 application; independent claim 1 in the '041 application; and independent claim 1 in the '046 application.

13. Out of the 38 distinct *Medicago sativa* alfalfa varieties referenced in paragraph 10 above, 17 varieties, i.e., 'CW 15041', 'CW 055032', 'CW 055035', 'CW 065015', 'CW 065035', 'CW 065038', 'CW 065041', 'CW 075028', 'CW 085029', 'CW 095007', 'CW 095029', 'CW 095030', 'CW 095031', 'CW 095032', 'CW 095033', 'CW 095034', and 'CW 095035', were created by utilizing the exemplified varieties referenced in paragraph nos. 6, 7, and 8 above as parent lines. Each of these 17 varieties meets the limitations of pending independent claims 15 and 30 in the '424 application; independent claim 1 in the '041 application; and independent claim 1 in the '046 application.

14. I further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the Cal/West applications or any patents issuing thereon.

Respectfully submitted,

Date: 01/05/2012

By: David W. Johnson

David W. JOHNSON

**EXHIBIT I**

**2002 Spring Forage Yield Trial @ West Salem, WI**

Seeded: 4/17

Entry	2003			2003		
	Recovery (cm/day)	% WL 319	Standability	% HybridForce- 400	Traces to parental line(s)	
CW 15041	1.78	125.05%	4.75	190.0%	CW 75046 / French lines	
CW 95026	1.65	115.62%	6.25	250.0%	Line disclosed in the '424 application	
HybridForce-400	1.37	95.99%	2.50	100.0%	n/a	
WL 319HQ	1.42	100.00%	1.00	40.0%	n/a	
Mean	1.51		2.48			
LSD (0.05)	0.11		1.28			
C.V. (%)	5.29		36.56			

**2003 Spring Forage Yield Trial @ West Salem, WI**

Seeded: 4/24

Entry	2004			2004		
	Recovery (cm/day)	% WL 319HQ	Standability	% WinterGold	Traces to parental line(s) / French lines	
CW 15033	1.82	109.3%	6.50	200.0%	French lines	Elite lines adopted to North America
CW 25038	2.02	120.8%	5.00	153.8%	French lines	Elite lines adopted to North America
CW 25039	1.88	112.3%	5.25	161.5%	French lines	Elite lines adopted to North America
CW 75046	1.75	104.7%	5.00	153.8%	Line disclosed in the '424 application	
WinterGold	1.61	96.6%	3.25	100.0%	n/a	
WL 319HQ	1.67	100.0%	2.50	76.9%	n/a	
Mean	1.86		4.07			
LSD (0.05)	0.09		1.49			
C.V. (%)	3.40		25.98			

**2004 Spring Forage Yield Trial @ West Salem, WI**

Seeded: 4/25

147798 v2 DC

Seeded: 4/15

Entry	2005			2005			Traces to parental line(s) / French lines
	Recovery (cm/day)	% Hybriforce-400	Standability	% WL 319 HQ	Recovery (cm/day)	% Hybriforce-400	
CW 15030	1.92	116.7%	6.00	180.0%	1.70	116.7%	French lines/ Elite lines adopted to North America
CW 25111	1.87	113.5%	7.00	210.0%	1.70	113.5%	French lines/ Elite lines adopted to North America
CW 35107	1.82	110.6%	7.33	220.0%	1.70	110.6%	French lines/ Elite lines adopted to North America
CW 75046	1.86	113.3%	4.67	140.0%	1.70	113.3%	Line disclosed in the '424 application
Hybriforce-400	1.65	100.0%	2.67	80.0%	1.70	100.0%	n/a
WL 319 HQ	1.64	99.9%	3.33	100.0%	1.70	100.0%	n/a
Mean	1.78		2.18				
LSD (0.05)	0.13		0.88				
C.V. (%)	4.33		24.67				

2005 Surface Forage Yield Trial @ West Salem, WI  
 A05WVWS

Seeded: 4/15

Entry	2006			2006			Traces to parental line(s) / French lines
	Recovery (cm/day)	% WL 319 HQ	Standability	% WL 319 HQ	Recovery (cm/day)	% Hybriforce-400	
CW 045007	1.57	112.75%	7.50	250.00%	1.57	112.75%	French lines/ Elite lines adopted to North America
CW 045036	1.94	116.67%	8.17	272.22%	1.94	116.67%	French lines/ Elite lines adopted to North America
CW 045037	1.98	119.06%	6.83	227.58%	1.98	119.06%	French lines/ Elite lines adopted to North America
CW 045038	1.96	117.98%	7.00	233.33%	1.96	117.98%	French lines/ Elite lines adopted to North America
CW 75046	1.88	113.25%	5.17	172.22%	1.88	113.25%	Line disclosed in the '424 application
CW 83021	2.04	122.88%	4.17	138.89%	2.04	122.88%	Line disclosed in the '424 application
Hybriforce-400	1.55	93.33%	3.00	100.00%	1.55	93.33%	n/a
WL 319 HQ	1.66	100.00%	3.00	100.00%	1.66	100.00%	n/a
Mean	1.92		3.75				
LSD (0.05)	0.12		1.16				
C.V. (%)	3.90		18.86				

2006 Spring Forage Yield Trial @ West Salem, WI

A06N1WS

Seeded: 6/22

Entry	2007		2007		% WL 319 HQ	Standability	% WL 319 HQ	Traces to parental line(s) / French lines
	Recovery (cm/day)	% WL 319 HQ	Recovery (cm/day)	% WL 319 HQ				
CW 055006	1.88	114.7%	8.00	480.0%	French lines	Elite lines adopted to North America		
CW 055031	1.81	110.6%	7.33	440.0%	French lines	Elite lines adopted to North America		
CW 055032	1.86	113.4%	7.33	440.0%	French lines	Elite lines adopted to North America		
CW 055035	1.83	111.6%	7.00	420.0%	CW 75046	CW 95026 / French lines		
HybHPForce-400	1.47	89.7%	1.33	30.0%	CW 75046	CW 95026 / French lines		
WL 319 HQ	1.64	100.0%	1.67	100.0%	na	na	na	na
Mean	1.78		3.19					
LSD (0.05)	0.16		1.71					
C.V. (%)	5.40		32.72					

2007 Spring Forage Yield Trial @ West Salem, WI

A07N1WS

Seeded: 5/3

Entry	2008		2008		% WinterGold	Standability	% WinterGold	Traces to parental line(s) / French lines
	Recovery (cm/day)	% WL 319 HQ	Recovery (cm/day)	% WL 319 HQ				
CW 065012	1.90	116.1%	7.00	300.0%	French lines	Elite lines adopted to North America		
CW 065013	1.89	115.3%	5.67	242.9%	French lines	Elite lines adopted to North America		
CW 065014	1.81	110.5%	7.00	300.0%	French lines	Elite lines adopted to North America		
CW 065015	1.86	113.3%	7.00	300.0%	CW 95026	CW 95026 / French lines		
CW 065035	2.05	125.1%	5.00	214.3%	CW 83021	CW 83029 / French lines		
CW 065038	1.96	119.4%	5.00	214.3%	CW 83021	CW 83029 / French lines		
CW 065041	1.91	116.6%	5.67	242.9%	CW 75046	CW 95026 / French lines		
CW 75046	1.63	99.5%	6.33	271.4%	Line disclosed in the 424 application			

WinterGold	1.54	93.9%	2.33	100.0%	n/a
HybridForce-400	1.52	92.6%	2.33	100.0%	n/a
WL 319 HQ	1.64	100.0%	1.67	71.4%	n/a
Mean	1.82		3.69	100.0%	
LSD (0.05)	0.14		2.35		
C.V. (%)	4.81		39.09		

2008 Sorghum Forage Yield Trial @ West Salem, WI  
 A08W1WS  
 Seeded: 5/6

Entry	Recovery (cm/day)	% HybridForce-400	2009		
			Standability	% HybridForce-400	Traces to parental line(s) / French lines
CW 075007	1.88	120.4%	7.67	1144.3%	French lines/ Elite lines adopted to North America
CW 075028	1.72	110.4%	8.33	1243.8%	CW 95026 / French lines
CW 075029	1.74	111.3%	7.67	1144.3%	French lines/ Elite lines adopted to North America
CW 075030	1.65	105.9%	7.67	1144.3%	French lines/ Elite lines adopted to North America
CW 075031	1.76	112.8%	8.33	1243.8%	French lines/ Elite lines adopted to North America
CW 075032	1.75	112.4%	8.33	1243.8%	French lines/ Elite lines adopted to North America
HybridForce-400	1.56	100.0%	0.67	100.0%	n/a
WL 319 HQ	1.53	98.0%	0.33	49.2%	n/a
Mean	1.86		2.32		
LSD (0.05)	0.11		1.56		
C.V. (%)	3.47		41.09		

2009 Sorghum Forage Yield Trial @ West Salem, WI  
 A09W1WS

Seeded: 4/17

Entry	2010			2010			Traces to parental line(s) / French lines	
	Recovery (cm/day)	% WL 319 HQ	Standability	% HybrForce-400	Recovery (cm/day)	% WL 319 HQ	Standability	
CW 084038	1.78	107.81%	3.67	22.0%	7.00	106.2%	4.20%	French lines
CW 085029	1.77	107.21%	7.00	42.0%	7.00	106.2%	4.20%	CW 75046, CW 95026 / French lines
HybrForce-400	1.62	98.28%	1.67	100%	n/a	n/a	n/a	n/a
WL 319 HQ	1.65	100.00%	1.00	60%	n/a	n/a	n/a	n/a
Mean	1.83		2.06					
LSD (0.05)	0.12		1.44					
C.V. (%)	3.94		42.76					

2010 Sorghum Forage Yield Trial @ West Salem, WI  
 A10WYWS

Seeded: 4/14

Entry	2011			2011			Traces to parental line(s) / French lines	
	Recovery (cm/day)	% WL 319 HQ	Standability	% WL 319 HQ	Recovery (cm/day)	% WL 319 HQ	Standability	
CW 095007	1.74	114.1%	7.67	766.7%	7.67	766.7%	766.7%	CW 95026 / French lines
CW 095029	1.68	110.2%	7.67	766.7%	7.00	700.0%	700.0%	CW 75046, CW 95026 / French lines
CW 095030	1.62	106.6%	7.00	700.0%	7.00	700.0%	700.0%	CW 75046, CW 95026 / French lines
CW 095031	1.74	114.3%	7.67	766.7%	7.67	766.7%	766.7%	CW 75046, CW 95026 / French lines
CW 095032	1.71	112.5%	7.67	766.7%	5.00	500.0%	500.0%	CW 75046, CW 95026 / French lines
CW 095033	1.90	124.6%	5.00	500.0%	4.33	433.3%	433.3%	CW 75046, CW 95026 / French lines
CW 095034	1.74	114.0%	5.67	566.7%	5.67	566.7%	566.7%	CW 75046, CW 95026 / French lines
CW 095035	1.73	113.4%	95.8%	100.0%	1.00	100.0%	100.0%	n/a
HybrForce-400	1.46	100.0%	1.00	100.0%	1.00	100.0%	100.0%	n/a
WL 319 HQ	1.52							n/a
Mean	1.76		2.57					
LSD (0.05)	0.10		1.26					
C.V. (%)	3.43		29.98					

APPENDIX A

Application Serial No.	Application Date	Docket Number	Title
10/698,424	11/03/2003	CALW-004/01US 306562-2009	ALFALFA PLANTS HAVING IMPROVED STANDABILITY AND/OR FAST RECOVERY AFTER HARVEST AND METHODS FOR PRODUCING SAME
11/925,046	10/26/2007	CALW-004/04US 306562-2021	ALFALFA PLANTS HAVING IMPROVED FAST RECOVERY AFTER HARVEST AND METHODS FOR PRODUCING SAME
11/925,041	10/26/2007	CALW-004/05US 306562-2020	ALFALFA PLANTS HAVING IMPROVED STANDABILITY AND METHODS FOR PRODUCING SAME